

Claims

1. A method for producing identification marks (5) in a layer-structured paper or board (7) to be manufactured as a continuous web, **characterized in** that the marks (5) are made with a laser beam (4) on a moving web form fiber layer (1), on which a
5 second layer of material (6) is overlaid in such a way that the marks remain inside the layer structure (7) of the moving web.
2. A method according to claim 1, **characterized in** that the marks (5) are made by burning the surface of the fiber layer (1).
3. A method according to claim 1, **characterized in** that the marks are made by
10 engraving hollows (5') on the fiber layer (1).
4. A method according to claim 1, **characterized in** that the fiber layer (1) contains mixing agent that is reacted or vaporized with a laser beam (4).
5. A method according to one of the previous claims, **characterized in** that after
15 the marking phase, the moving fiber layer (1) is laid against another moving, web form fiber layer (6).
6. A method according to claim 5, **characterized in** that the marking takes place with a paper or board machine as the fiber layer (1) contains moisture originating from pulp, in which case the web (7) is dried after the joining of the layers (1, 6).
7. A method according to claim 6, **characterized in** that the materials of the
20 fiber layers (1, 6) to be joined differ from one another.
8. A method according to claim 7, **characterized in** that one fiber layer to be joined is of chemical pulp and the other of mechanical or chemical/mechanical pulp.
9. A method according to claim 7 or 8, **characterized in** that one of the fiber layers to be joined is of unbleached pulp and the other of bleached pulp.
- 25 10. A method according to one of the previous claims, **characterized in** that the marked web form fiber layer (1) is applied with a coating layer, covering the marks (5).
11. Layer-structured paper or board (7) containing identification marks that can be manufactured with a method according to one of the previous claims,

characterized in that the web form paper or board (7) contains marks (5) made with a laser beam and these marks are embedded inside the layer-structure.

12. A paper or board according to claim 11, **characterized in** that the web is rolled around a drum or core.
- 5 13. A layer-structured board (7) containing identification marks that can be manufactured with a method according to one of the claims 1-10, **characterized in** that the board contains marks (5) made with a laser beam, and the marks are embedded inside the structure formed by a series of fiber layers (6, 1, 8) of the board.
- 10 14. Board according to claim 13, **characterized in** that the marks are darker figures (5) on the surface of the fiber layer (1), made by the reaction induced with a laser beam.
- 15 15. Board according to claim 13, **characterized in** that the marks are hollows (5') cut with a laser beam on the fiber layer (1) and that these hollows are filled with a different type of material present in the next fiber layer (6).
16. A board according to claim 14 or 15, **characterized in** that one of the fiber layers is of chemical pulp and the other of mechanical or chemical/mechanical pulp.
17. A board according to one of the claims 13-16, **characterized in** that it is a fold-carton formed of sulfate and CTMP layers.